## **Claims**

1. A compound selected from the group consisting of an acyl ribonucleoside and an acyl deoxyribonucleoside wherein the acyl group or the acyl groups is/are derived from a fatty acid, (preferably an unsubstituted, linear, saturated or unsaturated carboxylic acid) with 10 to 20 (preferably 16 to 18) carbon atoms or from 3-phenyl-propionic acid or from 12-hydroxy-stearic acid or from octadecanoic diacid or from hexadecanoic diacid or from azelaic acid or from octadecenoic diacid, whereby in the case of octadecanoic diacid or hexadecanoic acid or azelaic acid or octadecenoic diacid one or both COOH groups of the acid can be esterified with a nucleoside.

- 2. A compound according to claim 1 selected from the group consisting of palmitoyl uridine, 5'-O-palmitoyl uridine, palmitoyl guanosine, palmitoyl adenosine, palmitoyl cytidine, oleyl uridine, 5'-O-oleyl uridine, oleyl guanosine, oleyl adenosine, oleyl cytidine, stearoyl uridine, 5'-O- stearoyl uridine, 3-phenyl-propionyl uridine, the monoester of uridine with octadecanoic diacid, the diester of uridine with octadecanoic diacid, the monoester of uridine with hexadecanoic diacid, the diester of uridine with hexadecanoic diacid, the monoester of uridine with azelaic acid, the diester of uridine with azelaic acid, the monoester of uridine with octadecenoic diacid, the diester of uridine with octadecenoic diacid, the diester of uridine with octadecenoic diacid and 12-hydroxy-stearoyl uridine.
- 3. A composition comprising
- 3.1. an acyl ribonucleoside or an acyl deoxyribonucleoside having the following formulae I or II,

$$R^{1}O$$
 $R^{1}O$ 
 $R^{2}O$ 
 $R^{3}$ 
 $R^{2}O$ 
 $R^{2}O$ 
 $R^{2}O$ 
 $R^{3}O$ 
 $R^{2}O$ 
 $R^$ 

wherein

B is a nucleobase-moiety,

R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are independently selected from the group consisting of

- a) hydrogen,
- b) a saturated or unsaturated, linear or branched acyl radical with 3 to 22 carbon atoms, optionally substituted with one or more substituents selected from the group consisting of hydroxy, hydroxy-alkyl, amino, amino-alkyl, mercapto, mercapto-alkyl, halogen and thiolanyl,
- c) a saturated or unsaturated, linear or branched dicarboxylic acid radical with 3 to 22 carbon atoms or its derivative in which the —COOH-group that is not esterified with an OH-group of ribose or deoxyribose is replaced by -CONR'<sub>2</sub> or by CONR'<sub>3</sub>+S (wherein R' is a hydrogen atom, a saturated or unsaturated, linear or branched alkyl radical with 1 to 6 carbon atoms, or an aryl radical, or an aralkyl radical or an aralkylene radical and wherein S a counter ion) or by COHal (wherein Hal is a halogen atom) or by COSH (wherein S is sulphur),
- d) a saturated or unsaturated, linear or branched dicarboxylic acid diradical with 3 to 22 carbon atoms,
- e) an arylaliphatic acid radical and derivatives thereof, optionally substituted with one or more substituents selected from the group consisting of hydroxy, nitro, alkyl, alkoxy and halogen and
- f) a benzoic acid radical, optionally substituted with one or more substituents

selected from the group consisting of hydroxy, nitro, alkyl, alkoxy and halogen

and wherein in the case of formula I at least one of the substituents  $R^1$ ,  $R^2$  and  $R^3$  is not hydrogen and in the case of formula II at least one of the substituents  $R^1$  and  $R^2$  is not hydrogen and

- 3.2. auxiliaries and/or additives that are common for cosmetic purposes.
- 4. The use of the compound according to claim 1 or 2 or of the acyl ribonucleoside or the acyl deoxyribonucleoside as defined in paragraph 3.1 of claim 3 or of the composition according to claim 3 for the manufacture of a cosmetic preparation.
- 5. The use of the compound according to claim 1 or 2 or of the acyl ribonucleoside or the acyl deoxyribonucleoside as defined in paragraph 3.1 of claim 3 or of the composition according to claim 3 for the cosmetic treatment of the human body.
- 6. The use of the compound according to claim 1 or 2 or of the acyl ribonucleoside or the acyl deoxyribonucleoside as defined in paragraph 3.1 of claim 3 for the manufacture of a medicament for the treatment of human skin that has been damaged by UV-A radiation or by UV-B radiation or for the manufacture of a medicament for the treatment of inflammations of the human skin.
- 7. The use of the compound according to claim 1 or 2 or of the acyl ribonucleoside or the acyl deoxyribonucleoside as defined in paragraph 3.1 of claim 3 as a food supplement.
- 8. A process for manufacturing the acyl ribonucleoside or the acyl deoxyribonucleoside as defined in paragraph 3.1 of claim 3 comprising reacting (optionally in a non-toxic solvent) the ribonucleoside or the deoxyribonucleoside with an acyl group donor in

the presence of an enzymatic catalyst (optionally in soluble or in immobilised form).

9. The process of claim 8, wherein the acyl donor is the corresponding carboxylic acid.